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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/635,636	08/06/2003	Mark Haines	200210233-1	8480

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EXAMINER

MRUK, GEOFFREY S

ART UNIT	PAPER NUMBER
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2853

DATE MAILED: 08/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/635,636

Applicant(s)

HAINES ET AL. 

Examiner

Geoffrey Mruk

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) 14-44 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6 August 2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Claims 27-44 withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 6 June 2005.

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-13, drawn to a filter for a printhead assembly, classified in class 347, subclass 84.

II. Claims 14-26, drawn to a method of forming a filter for a printhead assembly, classified in class 210, subclass 438.

The inventions are distinct, each from the other because of the following reasons: Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product claimed can be made by a materially different process, such as assembling multiple layers of filtration material on top of one another to form an assembly; holding the assembly between an ultrasonic weld horn and a weld nest so that the assembly has a marginal area outside of an edge formed on either the nest or the weld horn; and operating the weld horn so as to cause the marginal area to

be cut off from the assembly at said edge and to simultaneously seal together the layers of filtration material of the remaining assembly at said edge.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

During a telephone conversation with Thomas A. Jolly on 24 August 2005 a provisional election was made without traverse to prosecute the invention of a filter for a printhead assembly, claims 1-13. Affirmation of this election must be made by applicant in replying to this Office action. Claims 14-26 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, and 4-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Hirose et al. (US 6,120,140).

With respect to claim 1, Hirose discloses a filter (Fig. 11, element 46) for a printhead assembly (Fig. 11; column 10, lines 53-58), the filter comprising:

- a frame (Fig. 11, element 44) having an opening (Fig. 12, element 44b) formed therein;
- filter material (Fig. 11, element 46) enclosing the opening of the frame (Column 5, lines 3-7); and
- a fluid fitting (Fig. 11, element 45) associated with the frame, the fluid fitting including a fluid port (Fig. 12, element 44a) offset from the frame and a fluid passage (Fig. 12, element 44) communicated with the opening of the frame and the fluid port.

With respect to claim 2, Hirose discloses the filter material is secured (Fig. 13b, elements 46 and 47b) to the frame around a perimeter of the opening.

With respect to claim 4, Hirose discloses the filter material (Fig. 11, element 46) is adapted to allow liquid ink to pass there through (Column 4, lines 39-48), and

wherein the filter material is adapted to prevent air from passing there through when the filter material is wetted by the liquid ink (Column 10, lines 8-17).

With respect to claim 5, Hirosawa discloses the fluid passage (Fig. 12, element L4) of the fluid fitting is adapted to direct air (Fig. 12, element 4) from the fluid port of the fluid fitting to the opening of the frame (Fig. 12, path from L4 to L'2 to L'3).

With respect to claim 6, Hirosawa discloses the filter material is adapted to trap air within the opening of the frame (Column 10, lines 29-37, i.e. – bubbles clinging to the filter).

With respect to claim 7, Hirosawa discloses the fluid port (Fig. 12, element 44a) of the fluid fitting (Fig. 11, element 45) has a longitudinal axis, and wherein the frame (Fig. 11, element 44) is oriented substantially parallel with the longitudinal axis of the fluid port. Although Hirosawa does not explicitly disclose the respective longitudinal axis, they would be necessarily present in order for the structure to exist.

With respect to claim 8, Hirosawa discloses the fluid passage of the fluid fitting (Fig. 11, element 45) has a surface oriented at an angle to the longitudinal axis of the fluid port (Fig. 12, element L'2, i.e. – angle between these elements).

With respect to claim 9, Hirosawa discloses the angle is approximately a right angle (Fig. 10, elements L1 to L2, i.e. – angle between these elements).

With respect to claim 10, Hirosawa discloses the angle is an acute angle (Claim 3).

With respect to claim 11, Hirosawa discloses the frame (Fig. 11, element 44) has a first face (Fig. 12, element 44a) and a second face (Fig. 12, element 44b) opposite the

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first face, wherein the opening of the frame communicates with the first face and the second face, and wherein the filter material is provided on the first face and the second face of the frame (Column 10, lines 53-67; Column 11, lines 1-4).

With respect to claim 12, Hirose discloses the frame has a substantially rectangular shape (Fig. 9, element 44 and Fig. 10, elements L1 to L5), and wherein the fluid port (Fig. 10, element 44a) of the fluid fitting extends from a side of the substantially rectangular shape.

With respect to claim 13, Hirose discloses the frame (Fig. 11, element 44) includes at least one separator (Fig. 12, element 47b) extending within the opening of the frame between opposite sides of the substantially rectangular shape.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirose et al. (US 6,120,140) in view of Komplin et al. (US 6,199,977 B1).

Hirose discloses a filter (Fig. 11, element 46) for a printhead assembly (Fig. 11; column 10, lines 53-58).

However, Hirose fails to disclose the filter has a mesh size in a range of approximately 2 microns to approximately 20 microns.

Komplin discloses a cartridge body for an ink jet printer where "The filter elements 64 preferably have a mesh size which is selected to prevent particles having an effective diameter ranging from about 0.1 μ m to about 50 μ m, preferably from about 5 μ m to about 10 μ m from passing through the filter element" (Column 4, lines 23-27).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to use the teachings of Komplin in the ink supplying apparatus and ink recording apparatus disclosed by Hirosawa. The motivation for doing so would have been "to filter ink entering the cavities 22 from the ink needles 24" and "to prevent particles from passing through the filter element" (Column 4, lines 18-31).

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

1. Claims 1-6, 11, and 12 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3, and 7-12 of copending Application No. 10/635,409. Although the conflicting claims are

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not identical, they are not patentably distinct from each other because the subject matter claimed in the instant application is fully disclosed in the copending application 10/635,409 and is covered in the copending application 10/635,409 since both applications are claiming common subject matter.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 1-6, 11, and 12 in the filed application for the filter for a printhead assembly are covered by claims 1, 3, and 7-12 in the copending application 10/635,409, as shown in the Tables 1, 2, and 3 below.

Table 1

<u>Copending Application 10/635,409</u>	<u>Instant Application 10/635,636</u>
1. A filter for a printhead assembly, the filter comprising: a frame having an opening and a fluid passage communicated with the opening formed therein; filter material enclosing the opening and the fluid passage of the frame; a first fluid port communicated with the fluid passage of the frame; a permeable material provided in a fluid path of the first fluid port; and a second fluid port spaced from the first fluid port and communicated with the fluid passage of the frame.	1. A filter for a printhead assembly, the filter comprising: a frame having an opening formed therein; filter material enclosing the opening of the frame; and a fluid fitting associated with the frame, the fluid fitting including a fluid port offset from the frame and a fluid passage communicated with the opening of the frame and the fluid port.
7. The filter of claim 1, wherein the filter material is secured to the frame around a perimeter of the opening.	2. The filter of claim 1, wherein the filter material is secured to the frame around a perimeter of the opening.
8. The filter of claim 1, wherein the filter material has a mesh size in a range of approximately 2 microns to approximately 20 microns.	3. The filter of claim 1, wherein the filter material has a mesh size in a range of approximately 2 microns to approximately 20 microns.
9. The filter of claim 1, wherein the filter material is adapted to allow liquid ink to pass there through, and wherein the filter material is adapted to prevent air from passing there through when the filter material is wetted by the liquid ink.	4. The filter of claim 1, wherein the filter material is adapted to allow liquid ink to pass there through, and wherein the filter material is adapted to prevent air from passing there through when the filter material is wetted by the liquid ink.
10. The filter of claim 9, wherein the filter material is adapted to allow air to pass there through before the filter is wetted by the liquid ink.	5. The filter of claim 1, wherein the fluid passage of the fluid fitting is adapted to direct air from the fluid port of the fluid fitting to the opening of the frame.

Table 2

<u>Copending Application 10/635,409</u>	<u>Instant Application 10/635,636</u>
3. The filter of claim 1, wherein the permeable material is adapted to allow air to pass there through before the permeable material is wetted by liquid ink and prevent air from passing there through when the permeable material is wetted by the liquid ink.	6. The filter of claim 5, wherein the filter material is adapted to trap air within the opening of the frame.
11. The filter of claim 1, wherein the frame has a first face and a second face opposite the first face, wherein the opening of the frame communicates with the first face and the second face, and wherein the filter material is provided on the first face and the second face of the frame.	11. The filter of claim 1, wherein the frame has a first face and a second face opposite the first face, wherein the opening of the frame communicates with the first face and the second face, and wherein the filter material is provided on the first face and the second face of the frame.
12. The filter of claim 1, wherein the frame has a substantially rectangular shape, and wherein the first fluid port and the second fluid port extend from a side of the substantially rectangular shape.	12. The filter of claim 1, wherein the frame has a substantially rectangular shape, and wherein the fluid port of the fluid fitting extends from a side of the substantially rectangular shape.

The preamble of application 10/635,636 does not limit the claimed invention because all of the limitations of the invention are the same as the limitations in copending application 10/635,409. Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to use the filter for a printhead assembly disclosed in copending application 10/635,409 in the filter for a printhead assembly, as claimed in the present application.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey Mruk whose telephone number is (571) 272-2810. The examiner can normally be reached on 7am - 330pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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8/25/2005

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8/26/05
MANISH S. SHAH
PRIMARY EXAMINER